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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#18
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Applicant : David J. Luneau
Serial No. : 10/042,686
Filed : March 14, 2000
Title : CALLING PARTY ANNOUNCEMENT APPARATUS

Art Unit : 2682
Examiner : Lee Nguyen

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Commissioner for Patents
P.O. Box 1450
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BRIEF ON APPEAL

Appellant is appealing the final rejection of claims 18-63 in the office action dated May 30, 2003. Appellant requests that the rejection of these claims be reversed.

(1) Real Party in Interest

The real party in interest is ClassCo Inc., 99 Airport Road, Concord, NH 03302.

(2) Related Appeals and Interferences

There are no related appeals or interferences.

(3) Status of Claims

Claims 18-20, 26-30, 34-36, 42-44, 47-50, 52-55, 57-60, and 62-63 stand rejected under 35 U.S.C. §102(e) as being unpatentable over Lim, U.S. Patent No. 5,265,145 ("Lim"). Claims 21, 31-33, 51, 56, and 61 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lim in view of Figa et al., U.S. Patent No. 4,924,496 ("Figa"). Claims 22-25 and 45-46 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lim in view of Blakley, U.S. Patent No. 4,899,358 ("Blakley"). Claims 37-41 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lim.¹

¹ There is also a double-patenting rejection. Applicant will file a terminal disclaimer upon a determination that the pending claims are allowable.

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(4) Status of Amendments

All amendments have been entered.

(5) Summary of Invention

The invention relates to apparatus and methods for use in a telephone Caller-Identification (“Caller ID” or “CID”) system. Specifically, Applicant’s invention enhances the user’s Caller ID experience by providing an audible audio announcement that indicates the identity of the calling party (the party placing the call) to the called party (the party receiving the call), such as by announcing the name of the calling party. Thus, the called party does not have to locate and read a LCD or other display to determine the identity of the calling party. Although the apparatus and methods of the present invention can be used in any setting, this is particularly advantageous if the called party is vision-impaired, or is engaged in activity (such as driving) where it is desirable to avoid the distraction of having to locate and read a display.

In one aspect, presented in the Group I claims defined below, the *same* audio transducer is used both to announce the identity information, and to reproduce the voice signals from the calling party. Applicant recognized that there is no need to have *separate* audio transducers to perform these separate functions. Rather, a single transducer does double-duty, reducing not only cost and complexity, but also saving space. Although the invention is not context-specific, this is particularly advantageous in applications such as cellular telephones, given their space-constraints. In another example, the single transducer could be part of a headset being worn by the called party. In this case, the transducer is already positioned very close to the called party’s ear, and the headset could even limit the ability of the called party to hear an announcement coming from a second, separate audio transducer. In another example, the called party may already be engaged in a telephone conversation when a call comes in on call waiting. The identity of the party on call waiting can be announced using the telephone audio transducer, without requiring the called party to listen to interrupt his conversation to listen to a separate audio transducer. Thus, using the same transducer for both purposes serves to reduce the potential distraction or confusion caused by audible signals coming from multiple sources, particularly when the called party is already engaged in a telephone call using a telephone handset, headset, or speakerphone.

In another aspect, presented in the Group II claims defined below, the invention stores *audio* information, such as an audio recording of the name of the calling party. When that particular calling party calls the called party, the invention retrieves the stored audio information associated with the calling party and reproduces the audio information. For instance, the called party could create an audio recording in his own voice associated with his mother's telephone number, saying "it's mom." Subsequently, in the event that a call is provisioned from the mother's telephone, the Caller ID system provides the mother's telephone number using standard Caller ID technology. The invention then uses that information to retrieve and play the stored audio recording, which in this case means that the called party hears, in his own voice, "it's mom," letting him know who the caller is without having to read a display.

(6) Issues

Formally speaking, the issues presented on this appeal are as follows:

- a. Are claims 18-20, 26-30, 34-36, 42-44, 47-50, 52-55, 57-60, and 62-63 unpatentable under 35 U.S.C. §102(e) over Lim?
- b. Are claims 21, 31-33, 51, 56, and 61 unpatentable 35 U.S.C. §103(a) over Lim in view of Figa?
- c. Are claims 22-25 and 45-46 unpatentable under 35 U.S.C. §103(a) over Lim in view of Blakley?
- d. Are claims 37-41 unpatentable under 35 U.S.C. §103(a) over Lim?

The sole question that needs to be resolved in order to address these four issues is whether Lim discloses every feature of independent claims 18, 42, 52, 57, and 62.

(7) Grouping of Claims

Appellant has grouped the claims into two groups for purposes of narrowing the issues for the appeal:

Group I: Claims 18-51, which stand or fall together. Of these, claims 18 and 42 are independent claims.

Group II: Claims 52-63, which stand or fall together. Of these, claims 52, 57 and 62 are independent claims.

A copy of the claims on appeal are included in the attached appendix.

(8) Argument

As noted, the only question that needs to be resolved in order to address the issues presented in this appeal is whether Lim discloses every feature of independent claims 18, 42, 52, 57, and 62. There are two subparts to this question, one pertaining to each Group: With regard to Group I, does Lim disclose using the *same* audio transducer to announce both caller-identity information, as well as to reproduce voice signals from the calling party? With regard to Group II, does Lim disclose the storage and retrieval of *audio* information?

The answers to both subparts is no. As to Group I, Applicant submits that the sparse disclosure of Lim can only be read to suggest the use of separate audio transducers, one for announcing caller-identity information, and the other for reproducing voice signals. As to Group II, Applicant further submits that Lim only discloses the storage and retrieval of digital text information, not audio information. The Examiner does not purport to find either of these claim features in either of the secondary references, Figa and Blakley, and so the rejections of all of pending claims 18-63 should be reversed, and the claims allowed.

We address the Group I and Group II claims separately.

Group I

Applicant does not dispute that Lim discloses a system for providing audible announcement of caller-identification information. However, Lim does so using a separate audio transducer than for reproducing voice signals from the calling party (such as the earpiece of a telephone handset). This is the only fair conclusion that one can draw from Lim's disclosure.

First, the voice signals are apparently reproduced in Lim's system by a "dialing circuit 2" and a "speech network 3" (see Figure 1), which Lim notes are "conventional circuits and commercially available." (2:21-22.) The conclusion that Lim's audio transducer for voice

signals is found in the speech network 3 is further supported by the following passage in Lim, which states that items 2 and 3 can be eliminated, and their function performed by a "telephone set," which of course has its own audio transducer:

In practical use (for saving of cost), the dialing circuit 2 and speech network 3 can be deleted, then the remaining parts of the circuit consist of an add-on device for adding on to any existing telephone set for displaying the caller's data. (4:13-17.)

Given this, clearly the audio transducer for announcing identity information must be located somewhere *other* than the optional dialing circuit 2 and speech network 3—otherwise, eliminating the dialing circuit 2 and speech network 3 would eliminate the ability to make audible announcements of caller-identification information, which is the goal of the remaining components of the design. Therefore, the audio announcement of caller-identification information is done by a separate audio transducer in Lim, namely "speech synthesizer or voice recording/reproducer 13:"

Microprocessor 8 can examine the [sic], and data signal if a name is included, then the name will be simply spelled or *spoken by the speech synthesizer or voice recording/reproducer 13.* (2:36-37, emphasis added.)

As shown in Figure 1, item 13 for making audible announcements of caller-identification information is a separate functional block of Lim's system than speech network 3 for reproducing voice signals.

Lim therefore does not disclose the feature of the Group I claims requiring that the same audio transducer be used for both purposes. Indeed, Lim teaches that this is a bad idea. In particular, as noted in the above-quoted passage, Lim makes it clear that it is desirable to have a

“modular” design, in which the conventional telephone components, including the audio transducer for reproducing voice signals, can be eliminated completely from the design:

In practical use (for saving of cost), the dialing circuit 2 and speech network 3 can be deleted, then the remaining parts of the circuit consist of an add-on device for adding on to any existing telephone set for displaying the caller's data. (4:13-17.)

Thus, one reading Lim would be lead away from using the same audio transducer for both purposes, because doing so would eliminate the “modular” nature of Lim's design, in which the dialing circuit and speech network 3 can be deleted, and certainly would not understand the reference to disclose this feature of the Group I claims.

Group II

With regard to the Group II claims, they recite the feature of storing “*audio information* associated with the caller identification data” (claim 52), “*audio identity information* associated with the caller identification data” (claim 57), and “*audio information* associated with the non-voice alphanumeric information” (claim 62). Lim, on the other hand, contemplates only the storage of digital text information, not audio information, and thus does not anticipate any of these claims.

Applicant does not dispute that Lim discloses storage of certain information in RAM 10. (2:40.) It is also true that Lim mentions a “speech synthesizer or voice recording/reproducer 13.” (2:37-38.) On this specific feature of the design, Lim does not provide sufficient information to determine what item 13 is, stating only that they “are all commercially available ICs.” (2:57-58.)

The question, therefore, is what Lim stores in his RAM 10. Applicant submits that Lim only contemplates the storage of digital text information, not audio information, and that the digital text information is then used by item 13 to produce an audio announcement. This

conclusion is compelled by Lim's statement that "[a] list of numbers and names, along with special codes appended to the numbers and names, can be typed and stored into memory (data RAM 10) using the keyboard 7." (4:4-7.) Clearly this passage describes the storage of digital text information in RAM 10.

Lim also states that "[i]f there is a number which is the same as the received number, the microprocessor 8 will access the name associated with the number and instruct the speak synthesizer or voice reproducer to *spell or speak* the name and show the name in the display 9." (2:41-45.) Lim further states:

The speech synthesizer IC and voice recorder/reproducer IC are all commercially available ICs. When a call comes in, speaking is better than spelling the caller's name. However, in the near future, the facility for spelling a caller's name is much more economical than speaking the name. (2:57-62.)

In order to *spell* the name, the individual letters that make up the name must, applicant submits, be stored as digital text information, not audio information as in the Group II claims. With regard to *speaking* the name, given Lim's suggestion that the technology for speaking a name is more advanced than the technology for spelling a name, Applicant submits that this is clearly referring to some sort of (undisclosed) speech synthesis technology, that converts digital text information to audio information, which again is fundamentally different than the approach claimed in Applicant's Group II claims of storing and retrieving audio information.

(9) Conclusion

In view of the forgoing, Applicant respectfully submits that the 35 U.S.C. §§ 102(e) and 103(a) rejections of claims 18-63 should be reversed, and the claims allowed.

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The brief fee of \$165.00 is enclosed. Please apply any other charges or credits to Deposit
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Respectfully submitted,



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Date: March 18, 2004

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Appendix of Claims on Appeal

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Previously added) A caller announcement apparatus for a telephone system that provisions a telephone call between a caller telephone at a caller station and a called telephone at a called station, where the caller station is associated with an identity, where the telephone system provides signals to the called station that include caller identification signals representative of the identity associated with the caller station and voice signals representative of audio detected by an audio transducer of the caller telephone, and where the voice signals are processed by the called telephone to produce audio using an audio transducer at the called station, the caller announcement apparatus comprising:

a signal receiver at the called station operatively connected to the telephone system to receive signals therefrom, the signal receiver being operative to extract caller identification signals from the signals received from the telephone system and to provide caller identification data corresponding to the extracted caller identification signals;

a processing unit operatively connected to the signal receiver to receive caller identification data therefrom, the processing unit being operative to provide identity information associated with the caller identification data;

an audio announcing circuit operatively connected to the processing unit to receive identity information therefrom, the audio announcing circuit being operative to use the identity information to produce audio using the audio transducer at the called station.

19. (Previously added) The caller announcement apparatus of claim 18 wherein the processing unit comprises memory storage for storing identity information associated with the caller identification data.

20. (Previously added) The caller announcement apparatus of claim 19 wherein the processing unit upon receiving caller identification data extracts from the memory storage the identity information associated with the caller identification data.

21. (Previously added) The caller announcement apparatus of claim 19 wherein the processing unit is operative to add, delete, and edit identify information stored in the memory storage.

22. (Previously added) The caller announcement apparatus of claim 18 further comprising:

an isolation circuit operative to prevent the telephone system from completing the telephone call from the caller telephone to the called telephone while the audio announcement circuit is producing audio using the audio transducer at the called station.

23. (Previously added) The caller announcement apparatus of claim 22 wherein the isolation circuit is operative to prevent the telephone system from recognizing that the telephone at the called station is off hook while the audio announcement circuit is producing audio using the audio transducer at the called station.

24. (Previously added) The caller announcement apparatus of claim 22 wherein the isolation circuit is further operative to cause the telephone system to complete the telephone call from the caller telephone to the called telephone in response to an input from a party at the called station.

25. (Previously added) The caller announcement apparatus of claim 24 wherein the isolation circuit is further operative to cause the telephone system to recognize that the called telephone is off hook in response to an input from the party at the called station.

26. (Previously added) The caller announcement apparatus of claim 18 wherein the caller identification data includes a telephone number associated with the caller station.

27. (Previously added) The caller announcement apparatus of claim 18 wherein the identity information associated with the caller identification data includes information corresponding to a name associated with the caller station.

28. (Previously added) The caller announcement apparatus of claim 18 wherein the identity information associated with the caller identification data is audio information corresponding to a name associated with the caller station.

29. (Previously added) The caller announcement apparatus of claim 28 wherein the audio information corresponding to the name associated with the caller station is recorded audio

information.

30. (Previously added) The caller announcement apparatus of claim 29 wherein the recorded audio information corresponding to the name associated with the caller station is recorded by a user of the called telephone.

31. (Previously added) The caller announcement apparatus of claim 18 wherein the identity information is associated with plural items of caller identification data.

32. (Previously added) The caller announcement apparatus of claim 18 wherein the identity information associated with the caller identification data is information corresponding to a geographical location associated with the caller station.

33. (Previously added) The caller announcement apparatus of claim 32 wherein the identity information associated with the caller identification data is audio information corresponding to a geographical location associated with the caller station.

34. (Previously added) The caller announcement apparatus of claim 18 wherein the identity information associated with the caller identification data is information corresponding to a telephone number associated with the caller station.

35. (Previously added) The caller announcement apparatus of claim 34 wherein the

audio announcing circuit includes a speech synthesizing circuit to produce synthesized speech of the telephone number associated with the caller station using the audio transducer at the called station.

36. (Previously added) The caller announcement apparatus of claim 18 wherein the apparatus is a part of the called telephone.

37. (Previously added) The caller announcement apparatus of claim 36 wherein the called telephone is a cordless telephone.

38. (Previously added) The caller announcement apparatus of claim 18 wherein the apparatus is a part of a computer system.

39. (Previously added) the caller announcement apparatus of claim 18 wherein the apparatus is a part of a computer-telephony interface board.

40. (Previously added) The caller announcement apparatus of claim 18 wherein the apparatus is a part of a telephone answering device.

41. (Previously added) The calling party announcement apparatus of claim 18 wherein there are a plurality of called telephones at the called station, and wherein the apparatus is interconnected to the plurality of called telephones.

42. (Previously added) In a telephone system that provisions a telephone call between a caller telephone at a caller station and a called telephone at a called station, where the caller station is associated with an identity, where the telephone system provides signals to the called station that include caller identification signals representative of the identity associated with the caller station and voice signals representative of audio detected by an audio transducer of the caller telephone, and where the voice signals are processed by the called telephone to produce audio using an audio transducer at the called station, a method of announcing an identity associated with the caller station at the called station, the method comprising:

extracting caller identification signals from the signals received at the called station from the telephone system;

providing caller identification data corresponding to the extracted caller identification signals;

processing the caller identification data to provide identity information associated with the caller identification data;

using the identity information to produce audio using the audio transducer at the called station.

43. (Previously added) The method of claim 42 further comprising:

storing identity information associated with the caller identification data.

44. (Previously added) The method of claim 43 wherein the processing step comprises extracting stored identity information associated with the caller identification data.

45. (Previously added) The method of claim 42 further comprising:
preventing the telephone system from completing the telephone call from the caller
telephone to the called telephone while the audio announcement circuit is producing audio using
the audio transducer at the called station.

46. (Previously added) The method of claim 45 further comprising:
enabling the telephone system to complete the telephone call in response to an input from
a party at the called station.

47. (Previously added) The method of claim 42 wherein the caller identification data
includes a telephone number associated with the caller station.

48. (Previously added) The method of claim 42 wherein the identity information
associated with the caller identification data includes information corresponding to a name
associated with the caller station.

49. (Previously added) The method of claim 48 wherein the identity information
associated with the caller identification data is audio information corresponding to a name
associated with the caller station.

50. (Previously added) The method of claim 49 further comprising:
recording the audio information corresponding to the name associated with the caller

station.

51. (Previously added) The method of claim 42 wherein the identity information associated with the caller identification data is information corresponding to a geographical location associated with the caller station.

52. (Previously added) A caller announcement apparatus for a telephone system that provisions a telephone call between a caller station and a called station, where the telephone system provides signals to the called station that include caller identification signals, the caller announcement apparatus comprising:

a signal receiver at the called station operatively connected to the telephone system to receive signals therefrom, the signal receiver being operative to extract caller identification signals from the signals received from the telephone system and to provide caller identification data corresponding to the extracted caller identification signals;

memory storage for storing audio identity information associated with the caller identification data;

a processing unit operatively connected to the signal receiver to receive caller identification data therefrom, the processing unit being operative to access the memory storage to retrieve stored audio identity information associated with the caller identification data;

an audio transducer;

an audio announcing circuit operatively connected to the processing unit to receive retrieved audio identity information therefrom, the audio announcing circuit being operative to

use the retrieved audio identity information to produce audio using the audio transducer.

53. (Previously added) The caller announcement apparatus of claim 52 wherein the audio transducer is a component of a called telephone at the called station.

54. (Previously added) The caller announcement apparatus of claim 53 wherein the telephone system further provides signals to the called station that include voice signals representative of audio detected by an audio transducer at the caller station, and wherein the voice signals are processed at the called station to produce audio using the audio transducer at the called station.

55. (Previously added) The caller announcement apparatus of claim 52 wherein the stored audio identity information is a name of a party associated with the caller station.

56. (Previously added) The caller announcement apparatus of claim 52 wherein the stored audio identity information is a geographical location associated with the caller station.

57. (Previously added) In a telephone system that provisions a telephone call between a caller station and a called station, where the telephone system provides signals to the called station that include caller identification signals, a method comprising:
extracting caller identification signals from the signals received at the called station from the telephone system;

providing caller identification data corresponding to the extracted caller identification signals;

storing audio identity information associated with the caller identification data; using the caller identification data to retrieve stored audio identity information; producing audio using the retrieved audio identity information.

58. (Previously added) The method of claim 57 wherein the audio is produced using an audio transducer in a called telephone at the called station.

59. (Previously added) The method of claim 58 wherein the telephone system further provides signals to the called station that include voice signals representative of audio detected by an audio transducer at the caller station, and wherein the voice signals are processed at the called station to produce audio using the audio transducer at the called station.

60. (Previously added) The caller announcement apparatus of claim 57 wherein the stored audio identity information is a name of a party associated with the caller station.

61. (Previously added) The caller announcement apparatus of claim 57 wherein the stored audio identity information is a geographical location associated with the caller station.

62. (Previously added) In a telephone system that provides signals to the called station that include non-voice alphanumeric signals, a method comprising:

extracting non-voice alphanumeric signals from the signals received at the called station from the telephone system;

providing non-voice alphanumeric data corresponding to the extracted non-voice alphanumeric signals;

storing audio information associated with the non-voice alphanumeric data;

using the non-voice alphanumeric data to retrieve stored audio information;

producing audio using the retrieved audio identity information.

63. (Previously added) The method of claim 62 wherein the non-voice alphanumeric signals are caller identification signals.